Data quality pilot review

West Midlands Fire and Rescue Authority
Audit 2008/09
March 2009



Contents



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Introduction and background

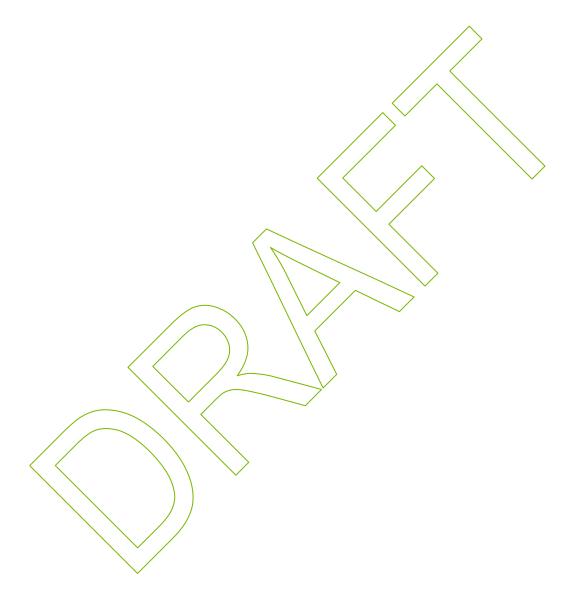
Introduction

- Public services need reliable, accurate and timely information with which to manage services, inform users and account for performance. Service providers make many, often complex, decisions about their priorities and the use of resources. Service users and members of the public more widely, need accessible information to make informed decisions. Regulators and government departments need information to satisfy their responsibilities for making judgements about performance and governance.
- 2 Much time and money is spent on the activities and systems involved in collecting and analysing the data which underlies performance information, yet there remains a lack of confidence in the consistency or reliability of some of this data. As increasing reliance is placed on this information in performance management and assessment regimes, the need for reliable data has become more critical.
- Good quality data is the essential ingredient for reliable performance and financial information, to support decision making as well as performance management. The data used to report on performance must, therefore, be fit for purpose, representing an organisation's activity in an accurate and timely manner. At the same time there must be a balance between the use and importance of the information, and the cost of collecting the required data to the necessary level of accuracy.
- Public bodies can improve the quality of their data by identifying the performance information that is important to them and their stakeholders, and securing the quality of the data to support these information needs. This is more likely to be successful if the performance information is routinely used for the day-to-day planning and management of services, and the people who collect the data understand its importance.
- In late 2007, DCLG (the Department for Communities and Local Government) published the New Performance Framework for Local Authorities and Local Authority Partnerships: Single Set of National Indicators. This document prescribed the definitions for a new national indicator (NI) set for local authorities and local partnerships, with effect from 1st April 2008, which had been announced as part of the chancellor's Comprehensive Spending Review. These new national indicators are the only means of measuring national priorities that have been agreed by government.

Background

The Audit Commission has developed a new approach to assessing the quality of data produced by public bodies. This approach forms part of an updated Use of Resources assessment which will be undertaken across all fire, police, local government and health bodies as part of our 2008/09 audit work.

West Midlands Fire and Rescue Authority (the Authority) kindly agreed to assist the Audit Commission in piloting a number of elements of the data quality section of the updated Use of Resources assessment between November 2008 and February 2009. The arrangements were also piloted at a number of other Fire and Rescue Authorities across the country. This piloting process will provide the Authority with an interim assessment of its arrangements for securing data quality, and also provided the Audit Commission with valuable feedback on its proposed audit methodology.



Scope and objectives

- Some elements of the full key lines of enquiry (KLOE) shown in Table 1 below, were tested at all pilot authorities. Based on this limited pilot testing we identified:
 - areas of good performance;
 - areas for improvement; and
 - areas for further investigation during our main Use of Resources visit later in the year.
- 9 A self-assessed summary of the Authority's arrangements for securing data quality was used as the basis of our work.

Table 1 Full KLOE

This table shows the full KLOE for data quality. Elements of this KLOE were piloted at the Authority.

KLOE focus

The organisation:

- produces relevant and reliable data and works with partners to ensure the quality of partnership data;
- understands the needs of its decision makers and provides them with information that is fit-for-purpose and is used to support decision making;
- ensures data quality and compliance with relevant statutory requirements; and
- monitors performance against its priorities and targets, and addresses underperformance.
- To further pilot the methodology, we carried out high-level data tests on a number of 2007/08 best value performance indicators (BVPIs) which have been mandated for review by the Audit Commission. These PIs, and their equivalents in the new NI dataset, are shown in Table 2 below.

Table 2 Data tests - mandated Pls

This table illustrates the 2007/08 BVPIs which have been specified for review by the Audit Commission.

Indicator description	2007/08 BVPI reference number	2008/09 NI reference number (for information only)
Deliberate primary fires (including vehicles) per 10,000 population	BV 206i and BV 206ii	NI 33i

Indicator description	2007/08 BVPI reference number	2008/09 NI reference number (for information only)
Deliberate secondary fires (including vehicles) per 10,000 population	BV 206iii and BV 206iv	NI 33ii
Primary fires per 10,000 population	BV 142ii	NI 49
Fatalities due to primary fires per 100,000 population	BV 143i	
Non-fatal casualties (excluding precautionary checks) per 100,000 population	BV 143ii	

11 In addition to the mandated PIs above, we also agreed three local PIs for review with the Authority. These PIs directly related to priorities in the Authority's 2007/08 Integrated Risk Management Plan. These PIs are shown in Table 3 below.

Table 3 Data tests - local Pls

This table illustrates the local 2007/08 RIs which were tested during this pilot review.

Local Pls

Accidental fires in dwellings

Dwelling fires where a working smoke alarm was fitted

Number of home fire safety checks conducted by the Brigade



Audit approach

- 12 We carried out this pilot exercise by:
 - discussing issues with Alan Brandon (Director, Corporate Planning and Support),
 Martina Doolan (Data Manager), Angela Johnson (Brigade Statistician) and
 Councillor Stuart Davies (Lead Member for Performance);
 - assessing documentation already held by the Audit Commission (including the Authority's recently completed self-assessment document); and
 - requesting and viewing additional documentation as appropriate.
- 13 Throughout the review we received feedback from the Authority on our draft KLOE and audit tools, which has helped to inform the final version of our methodology. This final version of the methodology will become KLOE 2.2 in the new Use of Resources assessment, which will be used nationally as part of our 2008/09 audit work.
- 14 As this was a pilot exercise, the costs of the review have been met by the Audit Commission. There will be no fee charged to the Authority.



Summary of findings

- 15 Based on the elements of the KLOE and data tests piloted during this review we identified some areas of good performance, namely;
 - Training material and guidance is available in a number of formats.
 - There are examples of improvements in arrangements and guidance coming from both the corporate centre and frontline staff.
 - Mosaic data is used to target areas for improvement.
 - Operational staff are informed of the reasons why they collect data and how this data is used corporately.
 - Routinely collected data is used to support decision making, rather than producing it as a secondary requirement.
 - Data definition comparison work and performance benchmarking is undertaken with other FRAs.
 - Performance information is used to identify deviations from planned performance.
 - We were able to conclude that all of the national indicators reviewing during this pilot were fairly stated.
- 16 We also identified a number of key areas for further improvement:
 - There is no separate verification process in place to confirm that home fire safety checks are undertaken. We have agreed with the Authority that we will revisit this matter as part of our main Use of Resources work.
 - Arrangements outlined in the data quality standing order have yet to become fully embedded in the organisation.
 - The Authority recognises the importance of getting data 'right first time' but acknowledges there is some work required to achieve this, as some manual cleansing of data is required.
 - Data quality is to be included in the 2009/10 corporate strategy to further raise awareness, establish a formal link with the planning process and to set departmental data quality objectives.

Way forward

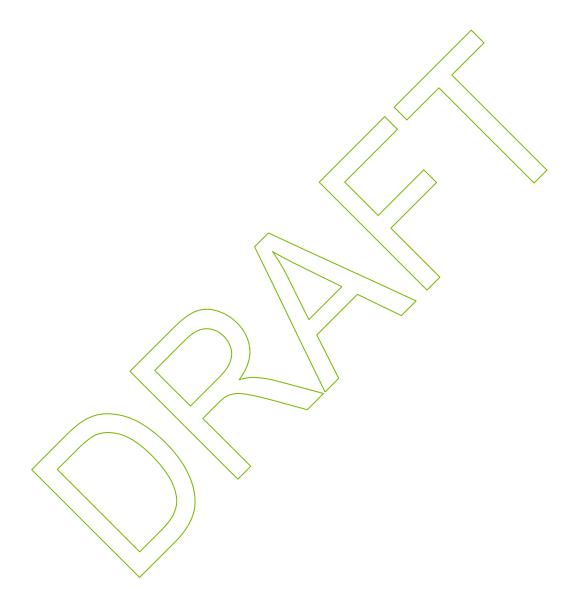
17 While this pilot exercise tested a number of the elements of Use of Resources KLOE 2.2, the main Use of Resources review that is taking place between March and July 2009 will form a conclusion against **all** parts of the KLOE as shown in Table 1 on page 5. The specific areas not tested during this pilot exercise that will be reviewed as part of the main Use of Resources visit are highlighted in the detailed findings section of this report, from page 11 onwards.

18 Recommendations for further improvement will be made to the Authority following completion of our main Use of Resources review.



Acknowledgements

19 We would like to place on record our thanks to the officers and members of the Authority for their assistance with this pilot review. Particular thanks are due to Alan Brandon, and Angela Johnson and her team.



Detailed findings

20 Our findings, based on the elements of the KLOE and data tests piloted during this review, are shown below.

Management arrangements

- 21 A self-assessed summary of the Authority's arrangements for securing data quality was used to pilot elements of the full KLOE.
- 22 For each part of the KLOE we have identified:
 - areas of good performance based on our pilot review;
 - areas for improvement based on our pilot review, and
 - areas for further investigation during our main Use of Resources visit.

Sub-KLOE: The organisation produces relevant and reliable data and works with partners to ensure the quality of partnership data.

23 Our findings in this area are shown below.

Areas of good performance

- Data quality standing order in place.
- Data sharing standing order in place.
- Responsibilities for data quality defined.
- Recognition of the potential risks arising from poor data quality.
- Training material and guidance available in a number of formats.
- Examples of improvements in arrangements and guidance coming from both the corporate centre and frontline staff.
- Staff at all levels involved in consultations for the implementation of new systems.
- Authority recognises importance of 'right first time' principle.
- Checks on data carried out by station commanders and statistics team.
- Use of Mosaic data to target areas for improvement.

Areas for improvement

- Practical implementation of some of these measures (especially those outlined in the data quality standing order) has yet to become fully embedded within the organisation.
- Data quality is to be included in the 2009/10 corporate strategy to further raise awareness, establish a formal link with the planning process and to set departmental data quality objectives.
- Authority recognises some work required to achieve 'right first time' principle.
- Officers recognise that data quality has yet to become fully embedded in the corporate risk framework.

24 In addition to refreshing our assessment of the items above, the work we will carry out during the main Use of Resources visit will also examine the following areas:

Areas for further investigation at main Use of Resources visit

- How data sharing protocols work in practice to secure data quality for partnership and third-party data.
- Further examples of how information on diversity and equality issues in the community is being used to inform decisions and priorities.

Sub-KLOE: The organisation understands the needs of its decision makers and provides them with information that is fit-for-purpose and is used to support decision making.

25 Our findings in this area are shown below.

Areas of good performance	Areas for improvement	
Performance indicator reports present information in a clear fashion. Operational staff are informed of the reasons why they collect data and how	Limited indication in performance indicator reports of the quality and	
	reliability of some information being reported.	
this data is used corporately.	Some limited cleansing of data required.	
 Data sources linked via Coalesce database. 		
 Use of data routinely collected to support decision making, rather than producing it as a secondary requirement. 		

26 In addition to refreshing our assessment of the items above, the work we will carry out during the main Use of Resources visit will also examine the following areas:

Areas for further investigation at main Use of Resources visit

- Member and officer perceptions of the format of performance indicator reports and the ways in which these reports influence decision making.
- Examples of where information (other than performance or financial data) is used to inform decision making.

Sub-KLOE: The organisation ensures data security and compliance with relevant statutory requirements.

27 Our findings in this area are shown below.

Areas of good performance	Areas for improvement
 Data definition comparison work undertaken with other FRAs. 	Further work required to embed arrangements, and the requirements of
 Discussions with CLG on an ongoing basis regarding definitions and processes. 	ISO 27001 (Information Security Management).
 Business continuity planning covers business critical information systems. 	
 Data security policy and guidance in place. 	
 Policies updated at least every three years. 	
 From the limited sample testing undertaken FDR returns appear to be completed in accordance with CLG guidance. 	

28 In addition to refreshing our assessment of the items above, the work we will carry out during the main Use of Resources visit will also examine the following areas:

Areas for further investigation at main Use of Resources visit

- Arrangements for certifying information from third parties.
- Arrangements for checking compliance with information security policies.

Sub-KLOE: The organisation monitors performance against its priorities and targets, and addresses underperformance.

29 Our findings in this area are shown below.

Areas of good performance	Areas for improvement
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- Formal measurement against objectives and priorities on a quarterly basis.
- Performance information used to identify deviations from planned performance.
- None identified as part of this pilot review.
- 30 In addition to refreshing our assessment of the items above, the work we will carry out during the main Use of Resources visit will also examine the following areas:

Areas for further investigation at main Use of Resources visit

- Framework for managing corporate and partnership performance.
- Further examples of the benchmarking used by the Authority to identify its strengths and weaknesses.
- Arrangements in place to manage and check implementation of major projects and strategies.
- Links between performance management and management of resources, to ensure that resources follow priorities.
- Arrangements in place for target setting.
- Examples of how the Authority has learned from staff and customer feedback, "whistleblowing" cases and the post-implementation reviews of major projects.

Data testing

- 31 To further pilot the methodology, we carried out data tests on a number of 2007/08 performance indicators. Our findings based on this pilot exercise, together with the areas for further investigation during our main Use of Resources review, are shown below.
 - BV 2061-iv: Deliberate primary and secondary fires (including vehicles) per 10,000 population
- 32 Based on the work carried out in the pilot, we have concluded that these indicators appear to be fairly stated, calculated in accordance with relevant guidance and are supported by an adequate audit trail.
 - BV 142ii: Primary fires per 100,000 population and BV 143i-ii: Fatalities and nonfatal casualties due to primary fires per 100,000 population
- 33 Based on the work carried out in the pilot, we have concluded that these indicators appear to be fairly stated, calculated in accordance with relevant guidance and are supported by an adequate audit trail.

Detailed findings

Local indicator: Accidental fires in dwellings

34 Based on the work carried out in the pilot, we have concluded that this indicator appears to be fairly stated, calculated in accordance with relevant guidance and is supported by an adequate audit trail.

Local indicator: Dwelling fires where a working smoke alarm was fitted

35 Based on the work carried out in the pilot, we have concluded that this indicator appears to be fairly stated, calculated in accordance with relevant guidance and is supported by an adequate audit trail.

Local indicator: Home fire safety checks conducted by the Brigade

- 36 Based on the work carried out in the pilot, we have concluded that this indicator appears to have been calculated in accordance with relevant guidance. However, there is no separate verification process in place to confirm that home fire safety checks are undertaken. We have agreed with the Authority that we will revisit this matter as part of our main Use of Resources work.
- 37 In addition to carrying out new data tests on a sample of 2008/09 performance indicators, the main Use of Resources work will also examine the following points:

Areas for further investigation at main Use of Resources visit

- The management arrangements for the collection and recording of each specific indicator.
- The systems and controls in place at a station level.
- The verification process for home fire safety checks.

